

ST. LOUIS 4/26/45

ST. LOUIS MISSOURI

SURVEY AND INVENTORY
OF
CLASS A PROPERTY
CHEVROLET SHELL DIVISION
GENERAL MOTORS CORPORATION
(ST. LOUIS ORDNANCE PLANT)
ST. LOUIS, MISSOURI



ST. LOUIS MISSOURI



2024792


Site: St. Louis Ordnance Plant
ID: MO82100224645
Break: 11.11

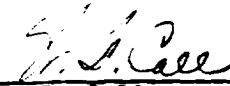
SURVEY AND INVENTORY

1. In accordance with the provisions of Paragraph 2 of Contract No. W-25-075-eng-2815, a Lease made by and between the United States Government, acting through the Secretary of War and represented by R. C. Crawford, Brigadier General, Division Engineer, Omaha, Nebraska, of the first part, and General Motors Corporation, Chevrolet Motor Division, a Delaware Corporation, of the second part, dated the 28th day of March 1945, the undersigned representatives of the Parties to said Contract jointly made a Survey and Inventory at the commencement of the term of said Contract of all Class A Property referred to in the said Contract. The Survey and Inventory of all Class A Property was completed on the 26th day of June 1945.

2. The Survey and Inventory referred to in Paragraph 1 hereof is attached hereto and incorporated herein and covers all Class A Property referred to in said Contract No. W-25-075-eng 2815. The said Survey and Inventory is described in detailed Specifications, Pages 1 to 29, supported by Photographs of all Structures and Utilities, Pages 1 to 72, and Seventy-six (76) Drawings, as listed in Index to Drawings, all Pages, Photographs, and Drawings having been properly initialed by the undersigned representatives of the Parties to said Contract


Harry N. Abele
Resident Engineer
For The Government


Phillip A. Grogg
For The Government


W. F. Call
Chief Engineer
Title
For The Lessee

GENERAL DESCRIPTION

Subject: (Report of Inspection and Inventory of Real Estate, Buildings and Class "A" Property at Chevrolet Shell Division Plant, located between Goodfellow and Riverview Boulevards at the north end of the St. Louis Ordnance Plant Military Reservation in St. Louis, Missouri.)

1. Description of Real Estate and items which bear no number in construction schedule.

a. Parcel A - A tract or parcel of land in the City of St. Louis, Missouri, and being more particularly described as follows:

(1) Beginning in the east line of Goodfellow Boulevard (100 Ft. Wide), at the southwest corner of Lot 12 in City Block 4338 BW; thence S $60^{\circ}41'45''$ E, 230.0 feet to a line between City Blocks 4338 BW and 4338 BE; thence with said line N, $29^{\circ}05'30''$ E, 7.0 feet to its intersection with the extension westwardly of the south line of Lot 42 in City Block 4338 BE; thence with south line of said lot, S, $60^{\circ}41'45''$ E., 147.5 feet to the west line of an alley (15 Ft. Wide) in City Block 4338 BE; thence with the west line of the above mentioned alley S, $29^{\circ}05'30''$ W, 370.0 feet to the south line of an alley (20.0 Ft. Wide), said alley being the north twenty (20) feet of a part of what was formerly Windham Avenue; thence with the south line of said alley S $60^{\circ}41'45''$ E, 192.5 feet to the extension southwardly of the east line of Woodstock Avenue; thence with the east line of Woodstock Avenue N $29^{\circ}05'30''$ E., 44.68 feet to the southwest corner of City Block 6110; thence with the south line of said City Block 6110 S $60^{\circ}54'45''$ E., 593.07 feet to the southeast corner thereof, said corner being on the west line of Riverview Boulevard S $29^{\circ}05'15''$ W. 307.49 feet to a point of curve; thence on a curve to the left having a radius 930.78 feet a distance of 108.78 feet; thence N. $60^{\circ}50'30''$ W. 1170.07 feet to the east line of Goodfellow Boulevard (100 Ft. Wide); thence with said east line N. $29^{\circ}05'30''$ E. 735.41 feet to point of beginning.

b. Parcel B - A tract or parcel of land being a part of City Blocks 4338 BE and 4338 BW in the City of St. Louis, Missouri, and being more particularly described as follows:

(1) Beginning in the east line of Goodfellow Boulevard (100 Ft. Wide), at the southwest corner of Lot 12 in City Block 4338 BW; thence with the east line of said Goodfellow Boulevard, N $29^{\circ}05'30''$ E. 300.0 feet to the northwest corner of Lot 24 in City Block 4338 BW; thence S $60^{\circ}41'45''$ N., 67.5 feet to the west line of an alley (15 Ft. Wide) in said City Block 4338 BW; thence with the west line of said alley N. $29^{\circ}05'30''$ E., 103.21 feet to its intersection with the south line of Lillian Avenue (60 Ft. Wide); thence with said south line S. $60^{\circ}17'30''$ N., 310.0 feet to the west line of an alley (15 Ft. Wide) in City Block 4338 BE; thence with the west line of the above mentioned alley S. $29^{\circ}05'30''$ W. 484.28 feet to the southeast corner of Lot 42 in City Block 4338 BE; thence with the extension westwardly of the south line of said lot, N. $60^{\circ}41'45''$ W., 147.5 feet to its intersection with the line between City Blocks 4338 BE and 4338 BW; thence with said block line S. $29^{\circ}05'30''$ W. 7.0 feet to its intersection with the extension eastwardly of the south line of Lot 43 in City Block 4338 BW; thence N. $60^{\circ}41'45''$ W. 230.0 feet to the point of beginning.

(2) Parcel A - owned by the War Department, and Parcel B being leased from the Lebanon Realty Company.)

2. Description

a. The above described plots are fenced with galvanized woven cyclone type wire fencing - 3451' of fencing 8' high, and 612' of fencing 6' high. All fence is topped with three strands of galvanized barbed wire. Fencing is supported on galvanized steel posts set in concrete. Total length of all fencing being 4063 lineal feet. Gates are provided at various points (see drawing No. A-1.9). These gates consist of steel pipe frame, covered with woven wire of the same type as the general fencing, and hang from well braced steel posts. Locking devices are provided on all gates. Typical photographs of these gates are included (see photos No. G 1 through G 7).

b. Gate houses are provided at the two main gates; one on Riverview Drive, the other on Goodfellow Boulevard. (see drawing No. A-1.9) The gate house on Riverview Drive (see photo No. G 1) is a part of the original construction of St. Louis Ordnance Small Arms Ammunition Plant and is a one-story brick building with concrete floor, steel window sash and door and concrete slab roof with pitch felt and gravel surface. Outside dimensions of this building are 11' x 11'. Gatehouse on Goodfellow Boulevard was moved from parking lot, remodeled and placed at present location. It is a frame building with concrete floor, siding, and roofing corrugated asbestos; door and window sash are wood, outside dimensions are 9' x 9'.

c. An overhead bridge has been built from Goodfellow Boulevard over roadway in front of Building No. 3 with a stairway leading down to the first floor level of Building No. 3 at a point near the southeast corner of this building. This structure is of wood, supporting columns resting on concrete footings. (see drawing No. A-1.9) A view of this structure is included. (see photo No. G 8)

d. Located near the southwest corner of Building No. 4 (see drawing No. A-1.9). Compressor Building is a fire equipment house, built during original construction as follows: concrete foundation and floors, brick walls, wooden roof deck with clay tile roof, sliding wooden doors and steel window sash. Outside dimensions are 15' x 16'. A separate photograph of this building was not prepared as it is shown in photograph No. -3.

e. Railroad tracks enter this area at a point near Riverview Drive passing through a gate in the south fence (see photo No. G 3). From this point, tracks curve westwardly into the area between Building No. 1 and Building No. 3, where a switch is provided. From this switch, two tracks are provided running west to their end at a point between Building No. 2 and Building No. 3 near the west end of (see photo No. G 10) Building No. 3. The north track is extended eastwardly along Building No. 1 and Storage Area No. 1A to its end at a point near the southwest corner of Storage Area No. 1A. Two turnouts from north to south track are included in this trackage; one near Building No. 1, and the other at the approximate midpoint of Building No. 3. (see drawing A-1.9) Standard car stops are provided at all track ends, (see photo G 10) and two electric car pullers; one at west end of trackage, the other south of storage area No. 1A, near the east end of the north track. (see photo No. G 10) Total trackage -.5 mile.

f. Roadways and paved areas totaling 16,838.95 square yards are provided (see drawing A-1.9). These roadways and paved areas are of three types; reinforced concrete 14,034.00 square yards, bituminous, high type 196.40 square yards and compacted crushed stone 2608.55 square yards; for views showing typical construction of these items. (see photos G 4, G 6, G 7, G 8, G 11; G 12 and G 13)

g. Underground pipe lines are used in the various utility systems throughout the plant. (see drawing No. M-1.6) Tunnels have been provided in four instances through which utility lines pass from one building to another. These are No. 1 - Basement of Building No. 3 to basement of Building No. 5. No. 2 - Basement of Building No. 3 to basement of Building No. 6. No. 3 - South wall of Building No. 8A to vault under floor in north end of Building No. 3. No. 4 - Basement of Building No. 6 to basement of Building No. 203, A, B, D, in St. Louis Ordnance Small Arms Ammunition Plant. A photograph of the last described tunnel is included. (see photo No. G 14) Sewage lines are of standard design and construction for their location and size. (see drawing M-1.6) Fire hydrants are located at various points throughout the plant area and may be located by referral to drawing No. M-1.6.

h. Two gasoline storage tanks with electric dispensing pumps are provided; one, Tank No. 105 with a capacity of 9,998 gallons located near the east end of Building No. 3, the other tank No. 101, capacity 11,549 gallons, located on west side of roadway along west side of Building No. 3. *#101 is sand filled at this date 4/15-9*

i. Above described items a, b, c, d, e, f, g, and h are in good condition with the following exception: electric powered car puller located southeast of storage area 1A has been broken and rendered unserviceable. (see photo No. G 15)

1. Description of Buildings

a. In the construction of this plant, two types of construction were necessary; one alteration of existing structures and utility systems adapting them to the needs of Chevrolet Shell Division, the other, construction of new buildings and installation of new utilities. This work was done according to plans prepared for the St. Louis Missouri Engineer District by Mauran, Russell, Crowell and Mullgardt - Architect Engineers.

b. This report will follow numbers assigned by the Architect Engineers to each building in the construction schedule. Each of these buildings will be the subject of a separate section of this report. The buildings and improvements not bearing numbers have already been covered in the section preceding headed "Description of Real Estate and Items Which Bear No Number in Construction Schedule."

c. Drawings have been prepared, showing floor plans, elevations, sections, utilities, and roof plans and construction details as constructed; these drawings have been indexed and appended to this report. Where major changes in existing structures have been made, drawings have been prepared of these as they were at the beginning of construction, and are also included.

d. Photographs have been made showing interior and exterior construction, special features and typical utility installations. These photographs have been titled and given serial numbers, and appear as a section of this report.

e. The last paragraph in the report on all structures or items of construction will constitute a statement of condition according to three classifications - good, fair and poor. In cases where faults in construction or damages to a structure occur, such faults and damages are explained in detail, and photographs are submitted.

BUILDING NO. 1, BILLET CUTTING BUILDING
BILLET STORAGE AREAS 1A AND 1B

1. Dimensions.

One-story, 141' 10" x 61' 0" - Outside.
8,770 square feet - Total floor area.
8,230 square feet - Productive floor area.
540 square feet - Non-productive area.

2. General Description.

a. This building is of new construction, built according to plans drawn by the Architect Engineers. Building and storage areas occupy space on the east side of plant near the north property line; the location in relation to other structures on the plant site may be seen by referring to drawing No. A-1.9 plot plan.

b. Steel framework and roof trusses. Foundations are reinforced concrete piers with spread footings under each column. Roof is precast concrete slab deck, with pitch felt and gravel surface. (See photograph No. 1-4). Siding is corrugated asbestos; floor is of reinforced concrete; maximum allowable floor load 1200 pounds per square foot. Steel window sashes are used throughout (See drawing No. A1-1.5). Main door located midway in south wall is a motor operated sliding wooden door. (See photograph No. 1-1). A small door through south wall is provided near office unit in southeast corner. (See drawing No. A1-1.5 and photograph No. 1-5).

c. Heating and ventilation is accomplished by unit ventilator heater combinations which pick up air from outside of building and blow it through the building. (See drawing No. M1-1.5). These units are so constructed that they may be used as ventilators by turning off steam input. Four of these units are used. Additional ventilation is effected by a metal duct system leading to hoods over each billet nicking machine; an exhaust fan is attached to this duct system and draws contaminated air from space above these machines and exhausts it to the outside through screened louvers in the south wall of building. (See drawing No. M1-1.5). Two of these duct systems are used; one in east end, and one on west end of building.

d. Two toilet and washroom units are located in southeast corner of building. (See drawing No. A1-1.5 and drawing No. M1-1.5) a photograph of the exterior of these units is included. (See photograph No. 1-6). No interior photographs were prepared.

e. Two small offices are located in the southwest corner of this building. (See drawing No. A1-1.5). Photograph No. 1-5 shows east wall, and photo No. 1-7 shows north wall of these offices.

f. Utilities in this building are water, steam, compressed air, acetylene gas, oxygen gas and light and power circuits. Details of these installations shown in drawings are as follows:

- (1) Water lines - drawing No. M1-1.5.
- (2) Steam lines - drawing No. M1-1.5.
- (3) Compressed air lines - drawing No. M1-1.5.
- (4) Acetylene lines - drawing No. M1-1.5.
- (5) Oxygen lines - drawing No. M1-1.5.
- (6) Electric light circuits - drawing No. 100E-10E.2.
- (7) Electric power circuits - drawing No. 100E-9E.7.

g. Condition of this building is good, with the following, exceptions: Siding has been damaged by crane on east and west ends; trucks or some mobile equipment have damaged siding on south wall; roof coping on west end damaged by crane; and window sash and lights on east and west end have been damaged by crane. (See photograph No. 1-2 and 1-10).

3. Billet Storage Areas 1A and 1B. These storage areas are located at the east and west ends of Building No. 1, 1A being the east and 1B the west storage area. Both are identical in size, 192'0" x 48'0" on center line of outside lines of H beams.

a. Type of construction - 1A-East Storage Area. Reinforced concrete walls, 3' in thickness, run north and south across the area on 6' centers projecting 1' above finished grade. Set in these walls on 6' centers each way are 10' lengths of 10" x 10" x 49 pounds H beams so set that 6' of their length project above the finished concrete, thus forming the billet rack. (See drawing No. A-1.9). Space between each wall has been covered with crushed limestone to a depth of 7" raising this surface to a point below the top of the finished concrete wall.

b. Type of construction - 1B-West Storage Area. Reinforced concrete walls run north and south through this area on 6' centers. Set in these walls on 6' centers each way are 10' lengths of 10" x 10" x 49 pounds H beams, so set that 6' of their length project above the finished concrete, thus forming the billet rack. The above described concrete walls differ from the walls in Area No. 1A, in the following manner: wall thickness does not remain constant at all points, each H beam being set in a portion of wall which is 3' in thickness, this 3' thickness extending 18" each way along line of wall from center of H beam where it is cut back to an 18" wall extending to the next 3' section surrounding an H beam. Spaces between these walls have been covered with crushed limestone in the same manner as described in Storage Area No. 1A.

4. Crane Rail Support Structures and Overhead Cranes.

a. Running above Building No. 1 and Storage Areas Nos. 1A and 1B are two overhead electric powered cranes. These cranes operate on rails mounted on a supporting structure of girders and trusses supported by steel columns on reinforced concrete piers with spread footings. Girders are used as the rail supporting medium where columns are on normal centers, trusses where south rail crosses roadway and railroad making a long span necessary. (See drawing No. A-1.9). From column line No. 25 to No. 39 inclusive of old Building No. 202 A, B, C; new building No. 3, south crane rail support structure ties into north wall and steel framework of Building No. 3 (Drawing No. A-1.9 and photograph No. 1-4 and 1-9). Where north crane rail passes over Building No. 1 supporting structure is attached to framework and roof trusses of this building. (See Photograph No. 1-4 and 1-2).

b. Illumination of these storage areas is accomplished by floodlights attached to crane rail structure and support columns. (See photograph No. 1-4, 1-2 and 1-8). These lights are controlled from feeder panel in Building No. 1 (See drawing No. 100E-10E.2).

c. The two cranes operating on above described rails and structures are identical units of 12-1/2 tons capacity each. Self-propelling electric cranes manufactured by the Whiting Company. Power for these cranes is furnished from switch room No. 4 in Building No. 3 (See drawing No. 100E-3E.4 and 100E-9E.7).

BUILDING NO. 2 FORGE BUILDING

1. Dimensions.

302'3" x 241'10-3/4" - Outside
70,428 square feet - Total productive floor area,
ground floor.
2,667 square feet - Total non-productive floor area,
ground floor.
792 square feet - Total floor area - switching room.
2,964 square feet - Total floor area - balcony
1,803 square feet - Total floor area - Cat walks.

2. General Description

a. This building is of new construction, built according to plans drawn by the Architect Engineers. It occupies space north of Building No. 3 along Goodfellow Boulevard. Its location in relation to other buildings on the plant site may be seen by referral to Drawing No. A-1.9.

b. Steel framework and roof trusses; corrugated asbestos siding and roof, steel window sash; center doors in north and south end are vertical sliding motor operated metal doors, upper half glazed. Top section of this building is an asbestos protected metal monitor type ventilator, manually controlled, exhausting heat from rotary furnaces to the outside. Floor is of reinforced concrete with maximum floor load of 1100 pounds per square foot (See drawings No. A2-1.10, A2-2.5, A2-3.4 and A2 4.4).

c. Heating is accomplished by the use of unit heaters located at various points throughout building (See drawing No. M2-4.3). Ventilation is accomplished by air being drawn into building through open spaces, doors, and windows at ground level and exhausted through monitor ventilator at top of building.

d. Three toilet and washroom units are located in this building - one in southwest corner, one in northwest corner, and one about midpoint on east side of building. (For location and construction details, see drawings No. A2-1.10 and M2-2.4, typical installation shown in photograph No. 2-12).

e. An office unit is provided in the southeast corner; exterior walls of this unit of concrete blocks, dividing walls and ceiling of plaster board on wood framing. (See drawing No. A2-1.10).

f. Utilities in this building are water, steam, compressed air, oil, light and power circuits and sewers; details of these installations are shown in drawings as follows:

- (1) Water lines - Drawing Nos. M2-2.4 and M2-4.3.
- (2) Steam lines - Drawing Nos. M2-2.4 and M2-4.3.
- (3) Compressed air lines - Drawing Nos. M2-2.4 and
M2-4.3.
- (4) Oil lines - Drawing Nos. M2-2.4 and M2-4.3.

- (5) Lighting circuits - Drawing Nos. 100E-12E.2.
- (6) Power circuits - Drawing Nos. 100E-14E.7 and
100E-13E.10.
- (7) Sewers - Drawing Nos. M2- 2.4 and M-1.6.

g. Two overhead electric powered self-propelling cranes operate over the intermediate bays in this building on rails supported by the columns and girders of this building. They are identical cranes of 20 tons capacity each, manufactured by the Whiting Company. Power is furnished from switch rooms in this building (See drawing Nos. 100E-13E.10 and 100E-14E.7).

BUILDING NO. 3 MACHINING BUILDING

1. Dimensions.

Two story. *181' 10" Sybilade dock*
 830' 3-1/4" x 200' 11" - Outside
 93,000 square feet - Productive area - first floor.
 118,272 square feet - Productive area - second floor.
 75,000 square feet - Non-productive area - first floor.
 36,508 square feet - Non-productive area - second floor.

2. General Description.

a. This building was a part of the original construction of the St. Louis Ordnance Plant, built in 1941 and used as a small arms ammunition manufacturing unit until late in 1944 when it was closed down, ammunition manufacturing machinery removed, and changes made in the structure suiting it to the needs of Chevrolet Shell Division. Drawings of this building as it was originally constructed appear in the section devoted to Drawings of the Project bearing the following numbers and titles:

<u>NUMBERS</u>	<u>TITLES</u>
202-A-102	30 Caliber Production Building - Part basement plan.
202-A-103	30 Caliber Production Building - Part basement plan.
202-A-104	30 Caliber Production Building - Part first floor plan.
202-A-105	30 Caliber Production Building - Part first floor plan.
202-A-106	30 Caliber Production Building - Part second floor plan.
202-A-109	30 Caliber Production Building - Part elevations and sections.

b. Steel framework and roof beams on reinforced concrete walls and piers with spread footings, walls solid brick masonry, except new addition which is faced on north, south and east sides with corrugated asbestos. (See Drawings Nos. A3-13.3 and A3-14.3). Roof of precast concrete slab with pitch, felt and gravel surface; steel window sash are used throughout, doors also of steel. (See Drawings Nos. A3, A5, A6-2.11, A3, A5, A6-1.13 and A3, A5, A6-B-3).

c. Floors of reinforced concrete, with three types of surfaces used: asphaltic tile, wood block and cement. (See Drawings Nos. A3, A5, A6-2.11). Allowable floor loads are as follows, given as live load per square foot. Boundary lines for these areas are on column lines running east and west, numbered lines north and south (See Drawings Nos. A3, A5, A6-B.3, A3, A5, A6-1.13 and A3, A5, A6-2.11).

BASEMENT

1,000 pounds per square foot

FIRST FLOOR

Column B to H, 9 to 21
 Column H to L, 17 to 21

750 Pounds per square foot
 750 Pounds per square foot

FIRST FLOOR

Column B to L, 1 to 9	500 pounds per square foot
Column H to L, 9 to 11R	500 pounds per square foot
Column H to L, 12 to 13	500 pounds per square foot
Column B to E, 28L to 43	500 pounds per square foot
Column G to L, 28L to 39	500 pounds per square foot
Column G to K, 39 to 43	500 pounds per square foot
Column H to L, 11L to 12	300 pounds per square foot
Column H to L, 13 to 17	300 pounds per square foot
Column B to L, 21 to 28R	300 pounds per square foot
Column E to G, 28L to 43	150 pounds per square foot
Loading Docks	400 pounds per square foot

SECOND FLOOR

Column H to L, 21 to 25	500 pounds per square foot
Column K to L, 24 to 27	500 pounds per square foot
Column H to L, 27 to 28R	500 pounds per square foot
Column C to K, 25 to 26	300 pounds per square foot - plus weight of presses
Column B to L, 1 to 21	300 pounds per square foot
Column B to H, 21 to 25	300 pounds per square foot
Column H to K, 24 to 25	300 pounds per square foot
Column H to K, 26 to 27	300 pounds per square foot
Column B to C, 25 to 26	300 pounds per square foot
Column B to H, 26 to 28R	300 pounds per square foot
Column B to C, 28L to 43	300 pounds per square foot
Column J to L, 28L to 39	300 pounds per square foot
Column J to K, 39 to 43	300 pounds per square foot
Column A to B, 7 to 10	150 pounds per square foot
Column A to B, 18 to 21	150 pounds per square foot
Column C to J, 28L to 43	150 pounds per square foot

d. Heating and ventilation in this building is accomplished by a combination of steam unit heaters, radiators and finned tube type heating units which temper incoming air to ventilation system. This ventilation system is a metal duct system with blowers located at various points in building and penthouses (See Drawing Nos. M3-1.4 through M3-9.4). Photograph No. 3-24 shows typical blower installation in one of the penthouses. Photograph No. 3-29 shows typical duct installation in cafeteria. Ventilation for heat treat furnace room is provided by a separate system of ducts, blowers and stacks (See Drawing Nos. M3-10.3 and M3-16). General view of the installation is shown in photograph No. 3-18. Ventilation and dust collection in shot blast department. (See Drawing No. M3-11.2). View of installation on roof in photograph No. 3-21.

e. Two overhead passages are provided leading from this building, one located at column L27 on second floor of Building No. 3 leading over roadway to second floor of Building No. 6 in northeast corner. The other at column L30 on second floor of Building No. 3 leading over roadway to second floor of Building No. 5 in northwest corner. Maximum floor load in passageways is 300 pounds per square foot. These passages constructed as follows: steel framework tying into structural members of each building, reinforced concrete floor, precast concrete slab roof with

pitch. felt gravel surface, steel window sash, corrugated asbestos siding. Photograph No. 5-6 showing exterior and photograph No. 3-26 interior construction of these units.

f. Two elevators are provided in this building, operating between first and second floors on north side of building at columns B12 and B33. These are Otis elevators of 10,000 pounds capacity each, electric powered, push button controlled with automatic safety doors. A view of one of the cars showing typical installation is included (See Photograph No. 3-20). Hoisting machinery and electrical controlling equipment for these elevators is installed in penthouses on specially constructed platforms directly above the elevators shafts. Typical installation is shown in photograph No. 3-19.

g. Toilets, washrooms and locker rooms are located at various points in this building (See Drawing No. M3-1.4 through M3-9.4 and A3, A5, A6-3.5). Photographs showing typical installation are No. 3-27 and 3-28.

h. Office units are located in this building at various points. (See Drawing Nos. A3, A5, A6-1.13 and A3, A5, A6-2.11). Photograph No. 3-37 showing typical construction of these units.

i. Utility installations in this building are water, steam compressed air, oil, gas, sewers, telephone, electric light, electric power and fire alarm system. Details of these systems shown in drawings as follows:

- (1) Water lines - Drawing Nos. M3-1.4 through M3-16.
- (2) Steam lines - Drawing Nos. M3-1.4 through M3-16.
- (3) Compressed air lines - Drawing Nos. M3-1.4 through M3-16.
- (4) Oil lines - Drawing Nos. M3-1.4 through M3-16.
- (5) Gas lines - Drawing Nos. M3-1.4 through M3-16.
- (6) Sewer lines - Drawing Nos. M3-1.4 through M3-16.
- (7) Telephone layout - Drawing Nos. 100E-22E.2 and 100E-23E.
- (8) Lighting layout - Drawing Nos. 200E-1E.4 through 200E-8E.2.
- (9) Power layout - Drawing Nos. 100E-3E.4.
- (10) Fire Alarm - Drawing Nos. 200E-53E.

j. The condition of this building is good with the following exceptions:

(1) Stairway basement to first floor at Column B 21 has been damaged by some heavy object sliding down it; resulting damage shown in Photograph No. 3-35.

(2) Basement floor along north side of building in bad condition due to coolant liquid draining from chip conveyor at this point; some surface water drains into basement at this point also and adds to the condition. (See Photograph No. 3-36).

(3) West Column on outer end of chip conveyor twisted, bent and broken loose from footing due to impact of lift truck (See photograph No. 3-37).

(4) Sliding doors throughout this building in general bad order due to careless handling of lift trucks. All doors through which these trucks pass show evidence of damage. Photograph No. 3-38 shows example.

(5) Along north wall at column B27 on second floor, wall has been battered in by lift trucks backing against it. These trucks were hauling chips from machines and dumping them into cars from roof of loading dock, before chip conveyor was installed.

(6) Damage to wall and door frame near column B12 on second floor. Metal door frame on east side of door twisted and broken away from wall and crack in wall from floor to a height of four feet at this point (See Photograph No. 3-40).

BUILDING NO. 4 COMPRESSOR BUILDING

1. Dimensions.

One story.

163'8" x 51'10" - Outside

8,450 square feet - floor area - first floor

2,772 square feet - floor area - basement

2. General Description.

a. This building is of new construction, steel framework on reinforced concrete walls and piers with spread footings, corrugated asbestos siding and roofing, except that portion of south wall between column line No. 7 to No. 11 which is brick (See Drawing No. A4-1.6).

b. South of this building and joined to foundation is a transformer platform with cable vault beneath, this portion of Building No. 4 is reinforced concrete, dimensions 16'x40' (See Photograph No. 4-3).

c. Underneath the west end of this building is a basement room 50'x40' inside, used as a cable room (See Drawing No A4-1.6 and photographs No. 4-6 and 4-7).

d. Floors are reinforced concrete throughout except covers over pipe trenches which are checkered steel plates 3/8" thick (See Drawing No. A4-1.6).

e. Steel window sash are used in all windows, main door is a vertical sliding door in north wall 45' from west end of building.

f. One small toilet and washroom unit is provided in the northeast corner of Building (See Drawing No. A4-1.6 and M4-2.1).

g. Heating and ventilation is accomplished by ventilating sections in windows and heater ventilator units in compressor room, and unit heaters in switching room. (See Drawing No. M4-1.3 and M4-2.1).

h. A switching room 40'x50' is located in west end of building (See Photograph No. 4-8), in which is located switching equipment for transformers located on transformer platform at southwest corner of building.

i. Utilities in this building are water, steam, compressed air, light, power and sewage.

- (1) Water lines - Drawings No. M4-1.3 and M4-2.1
- (2) Steam lines - Drawings No. M4-1.3 and M4-2.1
- (3) Compressed air lines - Drawings No. M4-1.3 and M4-2.1
- (4) Lighting layout - Drawing No. 100E-6E.5
- (5) Power layout - Drawing No. 100E-4E.8
- (6) Sewer lines - Drawings No. M4-1.3 and M4-2.1

j. Condition of this building is good.

BUILDING NO. 5 - EAST OFFICE BUILDING

1. Dimensions.

Two story.

237'2" x 41'10" - Outside.

1,153 square feet - Floor area in basement.

11,442 square feet - Floor area in first floor.

10,075 square feet - Floor area in second floor.

392 square feet - Floor area in Penthouse.

2. General Description.

a. This building was built in 1941 during construction of St. Louis Ordnance Plant and was used as a loading building until late in 1944 when this unit was closed down. Small arms ammunition loading machinery was removed at that time. Certain alterations were necessary to convert this building into office space. These alterations were made under the direction of the Resident Engineer from plans drawn by the Architect Engineers, and were as follows:

- (1) Cover old cement floor with asphaltic tile.
- (2) Close emergency exit doors on first floor.
- (3) Close openings in floor of second story with checkered steel plates welded to structural members.
- (4) Build new stairway of reinforced concrete in northeast corner.
- (5) Install two washroom and toilet units on second floor.
- (6) Alteration of two washroom and toilet units on first floor.
- (7) Erection of partitions, cutting floor area into corridors and suitable office units.
- (8) Make necessary alterations to existing utility systems.

b. Steel framework on reinforced concrete walls and piers with spread footings. Brick walls faced inside with glazed hollow tile. Roof deck of precast concrete slab, with pitch, felt and gravel surface. (See Drawing Nos. A3, A5, A6-B.3 through A3, A5, A6-4.10). Exterior of this building is shown in photograph Nos. 5-1 through 5-6.

c. Floors are of reinforced concrete with a covering of asphaltic tile. (See Photograph Nos. 5-9 and 5-10).

d. Floor area is broken into corridors and office units of various sizes by partitions of wood frame construction, lower portion of which is covered with celotex with upper part glazed with clear glass. (See Photograph Nos. 5-10 and 5-11, and Drawing Nos. A3, A5, A6-B.3 through A3). Floor loads in this building are as follows:

- (1) Basement - 1,000 pounds per square foot.
- (2) First floor - 300 pounds per square foot.
- (3) Second floor - 300 pounds per square foot.

e. Washroom facilities on both first and second floors, those on the second floor being newly constructed units, while those on the first floor are part of the original construction with some alterations. Piping in these units is shown in Drawing No. M5-1. For photographs showing typical installations - see photograph Nos. 5-19 and 5-20.

f. Stairways are provided at both ends of this building, one rising from first to second floor in the northeast corner of the building, newly constructed of reinforced concrete (See Photograph No. 5-15). The other, in the northwest corner of the building, is a part of the building as originally constructed (See Photograph No. 5-14).

g. An elevator operates between the first and second floors in the west end of building, approximately in the center of the west wall. This is an Otis electric elevator of 10,000 pounds capacity, push button controlled, with automatic safety doors for view of car interior (See Photograph No. 5-16). Hoisting machinery and control apparatus for this elevator is located on a specially constructed platform of reinforced concrete in penthouse at west end of building (See Photograph No. 5-17).

h. Heating in building is by radiators and steam unit heaters located at various points through the building (See Drawing No. M5-1).

i. Utilities provided in this building are water, steam, sewage, telephone circuits, fire alarm system, and light circuits. Details of the systems shown in drawings are as follows:

- (1) Water lines - Drawing No. M5-1.
- (2) Steam lines - Drawing No. M5-1.
- (3) Sewage lines - Drawing No. M5-1.
- (4) Telephone layout - Drawing No. 100E-24E.
- (5) Lighting layout - Drawing No. 100E-27E.1.
- (6) Fire alarm system - Drawing No. 200E-53E.

j. The condition of this building is good, with the following exceptions:

(1) Closure of opening in the floor of the second story on this building was accomplished by welding checkered steel plates over these openings. Over these plates and cemented to them is the asphaltic tile floor covering. It is the belief of Chevrolet Shell Division that these plates will yield sufficiently to the weight of traffic to break the cement bond between the floor covering and the steel plate, and should this happen it will be through no fault of theirs but through natural causes.

(2) Doors off hinges and damaged on oil house at southwest corner of building (See Photograph No. 5-21).

BUILDING NO. 6 - WEST OFFICE BUILDING

1. Dimensions.

Two story.
237'6" x 41' 10" - Outside.
1,153 square feet - Floor area in basement.
9,825 square feet - Floor area in first floor.
10,477 square feet - Floor area in second floor.
118 square feet - Floor area in Penthouse.

2. General Description.

a. This building, formerly Building No. 202E, was built in 1941 during construction of St. Louis Ordnance Plant and was used as a Primer Insert Building until late in 1944 when this unit was closed down. Small arms ammunition primer inserting machinery was removed at that time. Certain alterations were necessary to convert this building into office space. These alterations were made under the direction of the Resident Engineer from plans drawn by the Architect Engineers and were as follows:

- (1) Cover old cement floor with asphaltic tile.
- (2) Close emergency exit doors on first floor.
- (3) Install two washroom and toilet units on second floor.
- (4) Build overhead passage from second floor in southeast corner of Building No. 6 to second floor in southwest corner of Building No. 5.
- (5) Construct fireproof vault in northeast corner on second floor.
- (6) Erect partitions cutting floor area into corridors and suitable office units.
- (7) Make necessary alterations to existing utility systems.
- (8) Install ventilating equipment for laboratory unit.

b. Steel framework on reinforced concrete walls and piers with spread footings. Brick walls lined inside with glazed hollow tile. Roof deck of precast concrete slab with pitch, felt, and gravel surface (See Drawing Nos. A3, A5, A6-B.3 through A3, A5, A6-4.10). Exterior of this building is shown in Photograph Nos. 6-1 through 6-3.

c. Floors are of reinforced concrete with a covering of asphaltic tile (See Photograph Nos. 6-7 and 6-8 and Drawing Nos. A3, A5, A6-B.3 through A3). Floor loads in this building are as follows:

- (1) Basement- 1,000 pounds per square foot.
- (2) First floor - 300 pounds per square foot.
- (3) Second floor - 300 pounds per square foot.

d. Floor area is broken into corridors and office units of various sizes by partitions of wood frame construction, lower portion of which is covered with celotex with upper part glazed with clear glass (See Photograph Nos. 6-7 through 6-9 and Drawing Nos. A3, A5, A6-B.3 through A3, A5, A6-4.10).

e. Washroom facilities are provided on both first and second floors, those on the second floor being newly constructed units, while those on the first floor are part of the original construction with some alterations. Piping in these units is shown in Drawing No. M6-1.2. For photographs showing typical installations - see Photograph Nos. 6-15 and 6-16.

f. An overhead passage is provided from second floor of this building to the second floor of Building No. 5, constructed as follows: steel frame work tying into the structural members of both buildings, corrugated asbestos siding, steel window sash, reinforced concrete floor covered with asphaltic tile, precast concrete slab roof deck with pitch, felt, and gravel surface.

g. Fireproof vault in east end on second floor is new construction, brick walls resting on concrete floor with one steel door in south wall (See Drawing Nos. A3, A5, A6-2.11 and Photograph No. 6-10).

h. One stairway is provided between first and second floors in northeast corner of building. Construction is similar to stairway shown in Photograph No. 5-14.

i. Utilities provided in this building are water, steam, sewage, telephone circuits and light circuits. Details of these systems shown in drawings are as follows:

- (1) Water lines - Drawing No. M6-1.2.
- (2) Steam lines - Drawing No. M6-1.2.
- (3) Sewage lines - Drawing No. M6-1.2.
- (4) Telephone layout - Drawing No. 100E-25E.
- (5) Lighting layout - Drawing No. 100E-28E.1.

j. A separate ventilating system is provided for the laboratory using a metal duct system with blower, exhausting to stack on roof (See Drawing No. M6-1.2). A photograph of this roof installation appears in the photograph section (See Photograph No. 6-3).

k. Heating in this building is by radiators and steam unit heaters, located at various points throughout the building (See Drawing No. M6-1.2).

l. Condition of this building is good with one exception:

(1) A separation or crack appears in brick wall at east end of building, extending downward from roof coping at point where it joins south penthouse wall to top of first floor window. A photograph of this separation or crack appears in photograph section as No. 6-17.

BUILDING NO. 7 - PUMP HOUSE

1. Dimensions.

One Story
43'8" x 24'0" - Outside.
1,049 square feet - floor area.

2. General Description.

a. This Pump House is new construction, located east of Building No. 4, Compressor Building near the south property line (See Drawing A-1.9). Built of concrete blocks on reinforced concrete walls and footings, reinforced concrete roof slab, with pitch, felt and gravel surface (See Drawing Nos. A7, A8, All^A_B-1.2 and Photograph No. 7-1).

b. Floor is reinforced concrete, with maximum floor load of 1,000 pounds per square foot (See Drawing Nos. A7, A8, All^A_B-1.2 and Photograph Nos. 7-3 and 7-4).

c. Steel window sash are used throughout, hinged sections of these windows providing ventilation (See Drawing Nos. A7, A8, All^A_B-1.2 and Photograph Nos. 7-1).

d. Heating is accomplished by steam unit heaters located as shown in Drawing No. M7, 9-1.2.

e. Utilities in this building are water, steam, sewage, light circuits and power circuits. For details of these systems see following drawings.

- (1) Water lines - Drawing No. M7,9-1.2
- (2) Steam lines - Drawing No. M7,9-1.2
- (3) Sewage lines - Drawing No. M7,9-1.2
- (4) Lighting layout - Drawing No. 200E-10E.3
- (5) Power layout - Drawing No. 200E-10E.3

f. Condition of this building is good.

BUILDING NO. 7A- COOLING TOWER

1. Dimensions.

23'8" x 26'8" - Outside.
634 square feet - floor area.

2. General Description.

a. This Cooling Tower is located east of Building No. 7, Pump House (See Drawing No. A-1.9 and Photograph No. 7-2).

b. Reinforced concrete foundation structure (See Drawing No. A7, A8, All^A_B-1.2), this foundation structure forming basin beneath Cooling Tower superstructure.

c. A small sump pit is located at the southwest corner of tower foundation. This pit is of reinforced concrete construction (See Drawing Nos. A7, A8, All^A_B-1.2).

d. Cooling Tower superstructure rising above foundation is wood, according to specification (See Photograph No. 7-2).

e. Condition of this structure is good.

BUILDING NO. 8 - OIL STORAGE AREA

1. Dimensions.

196' from centerline of east earthen dam to centerline of west earthen dam.

130' from centerline of north earthen dam to toe of slope leading down from roadway at north end of Building No. 3.

2. General Description.

a. This storage area is bounded by an earthen dam on north, east and west sides and by a natural slope on the south. Running north and south through this area are two reinforced concrete walls dividing it into three sections of approximately the same size (See Drawing No. A-1.9 and Photograph Nos. 8-1 through 8-3).

b. In each of the above described three sections are located three tanks mounted on reinforced concrete saddle type foundations (See Drawing Nos. A-1.9 and M8, 8A, 11-1.2). Tank numbers, dimensions, and capacities are as follows:

TANK	DIMENSIONS	CAPACITY
(1) No. 4	10'0" x 30'0"	17,626 gallons
(2) No. 85	10'0" x 32'0"	18,801 gallons
(3) No. 24	10'0" x 32'0"	18,801 gallons
(4) No. 62	10'6" x 29'5"	19,057 gallons
(5) No. 75	10'6" x 29'6"	19,108 gallons
(6) No. 13	10'6" x 29'6"	19,108 gallons
(7) No. 82	10'0" x 27'6"	16,157 gallons
(8) No. 70	10'0" x 28'0"	16,451 gallons
(9) No. 20	10'0" x 29'4"	17,250 gallons

c. Drainage of the area enclosed by the earthen dam is effected by sluice gates connected to drain tile passing through north side of this dam (See Drawing Nos. M8, 8A, 11-1.2).

d. Piping to these tanks has been installed according to Drawing Nos. M8, 8A, 11-1.2, and Photograph No. 8-2 shows typical installation of this piping.

e. Fire protection for this area is afforded by a Foamite installation. Details are shown in Drawing Nos. M8, 8A, 11-1.2.

f. Condition of this installation is good.

BUILDING NO. 8A - PUMP HOUSE

1. Dimensions.

One story.
40' 7 $\frac{1}{2}$ " x 19' 11 $\frac{1}{2}$ " - Outside.
813 square feet - Floor area

2. General Description

a. This building is located north of Building No. 2, Forge Building (See Drawing No. A-1.9).

b. Constructed of concrete block walls set on reinforced concrete walls with spread footings. Roof is reinforced concrete slab with pitch, felt, and gravel surface. (See Drawing Nos. A7, A8, All^A_B-1.2).

c. Floor is of reinforced concrete. Maximum floor load in this building is 500 pounds per square foot.

d. Steel window sash are used throughout this building, with hinged ventilating sections at top and bottom (See Drawing Nos. A7, A8, All^A_B-1.2).

e. A reinforced concrete tunnel, 4' x 4' inside, leads from the east end of south wall in this building to north end of Building No. 2 Forge Building, carrying various pipe lines (See Drawing No. A-1.9).

f. Heat is furnished in this building by the use of unit heaters (See Drawing Nos. M8, 8A, 11-1.2).

g. Utilities in this building are water, steam, oil, light circuits and power circuits. For details of these installations see the following drawings:

- (1) Water lines - Drawing Nos. M8, 8A, 11-1.2
- (2) Steam lines - Drawing Nos. M8, 8A, 11-1.2
- (3) Oil lines - Drawing Nos. M8, 8A, 11-1.2
- (4) Lighting layout - Drawing No. 200E-10E.3
- (5) Power layout - Drawing No. 200E-10E.3

h. Condition of this building is good.

BUILDING NO. 9 - ACETYLENE GENERATOR BUILDING

1. Dimensions.

One Story.
32'8 $\frac{1}{2}$ " x 33'6" - Outside.
1,228 square feet - floor area

2. General Description.

a. This building is a part of the original construction of St. Louis Ordnance Plant. During its use as a part of the Small Arms Ammunition manufacturing unit it was used as a powder canning building No. 202F (See Drawing No. 202-A-121).

b. This building was altered, suiting it for use as an acetylene generator building (See Drawing Nos. 202-A-121, A9, All-1.3, and Photograph Nos. 9-1 and 9-4).

c. Tile walls with inside surface glazed, wood rafter and roof deck construction with tile roof surface. Steel sash used throughout (See Drawing Nos. A9, All-1.3, and Photograph No. 9-4).

d. Floors are of reinforced concrete with a maximum floor load of 900 pounds per square foot.

e. Utilities installed in this building are acetylene gas lines, water, sewage, compressed air, light circuits and power circuits; details of these installations shown in drawings as follows:

- (1) Acetylene lines - Drawing Nos. M7, 9-1.2
- (2) Water lines - Drawing Nos. M7, 9-1.2
- (3) Sewage lines - Drawing Nos. M7, 9-1.2
- (4) Compressed air lines - Drawing Nos. M7, 9-1.2
- (5) Light circuits - Drawing No. 200E-9E.5
- (6) Power circuits - Drawing No. 200E-9E.5

f. Heating in this building is by steam radiators (See Drawing Nos. M7, 9-1.2).

g. Condition of this building is good.

BUILDING 9A - CARBIDE STORAGE BUILDING

1. Dimensions.

42' x 48' - Outside.
2,061 square feet - floor area

2. General Description.

a. Outside walls of this building are formed by old reinforced concrete barrier that formerly encircled Building No. 202H which was removed, and a roof built over the area enclosed by this barrier, this roof being of wood rafter and roof deck construction with composition roof surface (See Drawing Nos. A9, All-1.3, and Photograph No. 9-4).

- b. Floor in this building is of reinforced concrete with maximum floor load of 1,000 pounds per square foot.
- c. Lighting circuits are the only utility installation in this building appearing in Drawing No. 200E-9E.5.
- d. The condition of this building is good.

BUILDING NO. 9B - SLUDGE PITS

1. Dimensions.

28'8" x 12'0" - Inside.
378 square feet - total area.

2. General Description.

- a. These Sludge Pits are located between Buildings No. 9 and No. 9A. They are reinforced concrete construction throughout. Dimensions given under No. 1 are over-all inside dimensions, however, a concrete wall divides this area into two pits, north pit being No. 1 and south pit No. 2, each pit identical units, 12'0" x 13'4" inside (See Drawing Nos. A9, All-1.3, and Photograph Nos. 9-3 and 9-4).
- b. These sludge pits are equipped with piping, sewage, water and waste line from Building No. 9 as shown on Drawing Nos. M7, 9-1.2
- c. The condition of these Sludge Pits is good.

BUILDING NO. 9C - DRIOX OXYGEN RECEIVER

This oxygen receiver is not the property of the Government but is the property of the Linde Air Products Company, who lease equipment of this kind to users; however, two reinforced concrete, saddle type supports have been built for this receiver and are a part of this plant. For location of these supports see Drawing No. A9 All-1.3. A Photograph of this installation appears in the photograph section (See Photograph No. 9-5)

BUILDING NO. 9D - DRIOX OXYGEN BUILDING

1. Dimensions.

One story.
22'4-3/8" x 20'3/4" - Outside.
455 square feet - total floor area.

2. General Description.

- a. This building is located along the west wall at the northwest corner of Building No. 9A (See Drawing Nos. A9, All-1.3, and Photograph No. 9-5).

b. Walls of this building are of concrete block construction resting on reinforced concrete foundation. Rafters and roof deck are of wood covered with composition roofing. Two sliding wooden doors are provided on north side (See Drawing No. A9, All-1.3, and Photograph Nos. 9-5 and 9-2).

c. Light and power circuits in this building are shown in Drawing No. 200E-9E.5. Floor in this building is of reinforced concrete, 500 pounds per square foot maximum load.

d. Condition of this building is good.

BUILDING NO. 10 - QUENCH OIL TANKS

1. General Description.

a. This unit consist of three underground tanks, located at the east end of Building No. 3 (See Drawing No. A-1.9). Dimensions of these tanks are as follows:

Tank	Dimensions	Capacity
1. No. 87	10'0" x 24'0"	14,100 gals.
2. No. 17	10'6" x 23'6"	15,222 gals.
3. No. 15	10'6" x 23'8"	15,332 gals.

b. Condition of these tanks is good.

BUILDING NO. 11 - FOAMITE GENERATOR BUILDING

1. Dimensions.

One story.
20' 3-1/2" x 13' 6" - Outside.
274 square feet - Total area.

2. General Description.

a. Located north of roadway at the northwest corner of Building No. 2 (See Drawing No. A-1.9).

b. Constructed of concrete block walls resting on reinforced concrete foundation walls (See Drawing Nos. A-9, All-1.3 and Photograph No. 11-1). Roof of wood. Rafters and deck constructed with composition on roofing surface.

c. Steel window sash are used throughout, with hinged sections at top affording ventilation.

d. Floor of this building is reinforced concrete with maximum load of 500 pounds per square foot.

e. Heating by steam unit heater.

f. Utilities provided in this building are water, steam, sewage, foamite lines, light circuits and power circuits. For details of these systems, see drawings as follows:

- (1) Water lines - Drawing No. M8, 8A, 11-1.2.
- (2) Steam lines - Drawing No. M8, 8A, 11-1.2.
- (3) Sewage lines - Drawing No. M8, 8A, 11-1.2.
- (4) Foamite lines - Drawing No. M8, 8A, 11-1.2.
- (5) Lighting layout - Drawing No. 200E-9E.5.
- (6) Power layout - Drawing No. 200E-9E.5.

g. Condition of this building is good.

BUILDINGS NOS. 11A AND 11B HOSE CART SHELTERS

1. Dimensions.

8' 1" x 12' 1 3/8" - Outside.
98 square feet - Total area.

2. General Description.

a. Two of these hose cart shelters are located within the plant area. They are identical structures, and are located at the northwest corner of the area enclosed by the earthen dam around Building No. 8, Oil Storage Area, and the other across roadway from the northwest corner of Building No. 2 Forge Building (See Drawing No. A 1.9).

b. These buildings are constructed of concrete blocks resting on reinforced concrete walls, rafters and roof deck of wood with composition roofing (See Drawing Nos. A7, A8, All^A_B-1.2 and photograph No. 11-2).

c. No utility installations in these buildings.

d. The condition of these buildings is good.

BUILDING NO. 12 GASOLINE STORAGE TANKS

These tanks are fully described under "h" on page No. 3 of this report.